

**Dental Radiography** Potential CTAN alignment with the Health Science Pathway in the Career Field Technical Content Standards of the Ohio Department of Education. 072076

**General Course Description:** The course will prepare the learner for the state license examination for exposing radiographs in a dental office setting. Includes properties of radiographs and imaging, the dental imaging machine, radiation safety, digital imaging, dental films, and the processing of radiographs.

**Advising Notes:**

- Must access credit within 3 years of program completion or within currency of certificate.

**Proposed Semester Credit Hours:** 2

**Proposed Alignment:**

<b>Proposed Learning Outcomes</b> <b>The student will be able to:</b>	<b>Competencies and/or Descriptors from the Health Science Pathway of the Career Field Technical Content Standards</b>
1. Recognize the properties of x-radiation.	<b>3.7 Dental Interventions</b> 3.7.8 Describe the science of radiation production, safety and protection.
2. Describe how dental radiographic images are produced.	<b>3.7 Dental Interventions</b> 3.7.10 Describe principles of digital radiography and equipment needed.
3. Explain how kV, mA, and exposure time affect the x-ray beam.	<b>3.7 Dental Interventions</b> 3.7.11 Describe common x-ray production and processing errors and their corrections.
4. Identify the proper range of kV and mA used in dental radiographic imaging.	<b>3.7 Dental Interventions</b> 3.7.8 Describe the science of radiation production, safety and protection.
5. Discuss radiation injury and describe the effect on various tissues.	<b>3.7 Dental Interventions</b> 3.7.8 Describe the science of radiation production, safety and protection.
6. List and describe ways to protect a patient before, during and after radiation exposure.	<b>3.7 Dental Interventions</b> 3.7.15 Prepare individuals for dental intervention. 1.2.3 Identify and use verbal, nonverbal and active listening skills to communicate effectively. 1.5.3 Use cultural intelligence to interact with individuals from diverse cultural settings.

	1.5.7 Use intercultural communication skills to exchange ideas and create meaning.
7. Define MPD, cumulative occupational dose, and ALARA.	<b>3.7 Dental Interventions</b> 3.7.8 Describe the science of radiation production, safety and protection.
8. Demonstrate proper safety protocols when exposing radiographic images.	<b>3.7 Dental Interventions</b> 3.7.8 Describe the science of radiation production, safety and protection.
9. Label the dental x-ray machine component parts and explain the function of each.	<b>3.7 Dental Interventions</b> 3.7.10 Describe principles of digital radiography and equipment needed.
10. Assess equipment prior to use for safety and quality assurance.	<b>3.7 Dental Interventions</b> 3.7.10 Describe principles of digital radiography and equipment needed.
11. Demonstrate preparing the armamentarium for dental radiographic images.	<b>3.7 Dental Interventions</b> 3.7.14 Identify differences in common procedures and equipment used in pediatric and adult dentistry.
12. Demonstrate preparing the patient for dental radiographic images.	<b>3.7 Dental Interventions</b> 3.7.15 Prepare individuals for dental intervention. 1.2.6 Use proper grammar and expression in all aspects of communication. 1.5.3 Use cultural intelligence to interact with individuals from diverse cultural settings. 1.5.7 Use intercultural communication skills to exchange ideas and create meaning.
13. Demonstrate techniques for exposing bitewing, periapical, panoramic, and occlusal dental radiographic images.	<b>3.7 Dental Interventions</b> 3.7.12 Describe the paralleling and bisecting x-ray techniques and needed equipment. 3.7.13 Take intraoral and extra oral photographs and radiographs. 4.3.6 Identify and follow standard precaution guidelines.
14. Describe and demonstrate the processing, storing, and information	<b>3.7 Dental Interventions</b> 3.7.9 Describe the composition, sizes, types, mounting and storage procedures of dental x-ray.

security of dental radiographic images.	<p>3.1.3 Describe confidentiality guidelines in the Health Insurance Portability and Accountability Act (HIPAA).</p> <p>1.4.2 Select and use software applications to locate, record, analyze and present information (e.g., word processing, e-mail, spreadsheet, databases, presentation, Internet search engines).</p> <p>6.2.5 Distinguish confidential and non-confidential information, and document and prioritize requests for personal health information according to privacy and confidentiality guidelines.</p> <p>6.2.8 Implement administrative, physical and technical safeguards to maintain data integrity and validity.</p>
15. Accurately arrange dental radiographic images.	<p><b>3.7 Dental Interventions</b></p> <p>3.7.9 Describe the composition, sizes, types, mounting and storage procedures of dental x-ray.</p> <p>1.2.1 Extract relevant, valid information from materials and cite sources of information (e.g., medical reports, fitness assessment, medical test results).</p>

**Introduction to Dental Assisting** Potential CTAN alignment with the Health Science Pathway in the Career Field Technical Content Standards of the Ohio Department of Education. 072075

**General Course Description:** This course is an introduction to dental assisting. The role of the dental assistant and the profession of dentistry are covered. In addition, dental terminology, ethics and laws are introduced.

**Advising Notes:**

- Must access credit within 3 years of program completion or within currency of certificate.

**Proposed Semester Credit Hours:** 1

**Proposed Alignment:**

<b>Proposed Learning Outcomes</b>  <b>The student will be able to:</b>	<b>Competencies and/or Descriptors from the Health Science Pathway of the Career Field Technical Content Standards</b>
1. Describe the history of dentistry and dental assisting.	1.1.2 Identify the scope of career opportunities and the requirements for education, training, certification, licensure and experience.
2. Explain the role of the dental assistant and their duties in creating a safe environment for the public.	<p><b>3.1 Environment Interventions</b>  <b>Create and maintain a safe, sterile, efficient, and developmentally appropriate care environment.</b></p> <p>3.1.1 Use standard precaution guidelines, recommended by the governing bodies for reducing the risk of transmission of pathogens.</p> <p>3.1.2 Maintain patients' rights, respect individual's choices, and obtain consent.</p> <p>1.1.1 Identify the knowledge, skills, and abilities necessary to succeed in careers.</p> <p>1.5.3 Use cultural intelligence to interact with individuals from diverse cultural settings.</p> <p>1.5.7 Use intercultural communication skills to exchange ideas and create meaning.</p>
3. Define dental terminology.	<p><b>3.7 Dental Interventions</b>  <b>Assist in the application of dental and oral interventions and document with dental terminology and symbols.</b></p> <p>3.7.1 Identify dental anatomy, surfaces, and tooth numbering systems.</p>
4. Describe professionalism for dental assistants.	<p>1.1.8. Identify the correlation between emotions, behavior, and appearance and manage those to establish and maintain professionalism.</p> <p>1.3.3 Use ethical character traits consistent with workplace standards (e.g., honesty, personal integrity, compassion, justice).</p> <p>1.5.3 Use cultural intelligence to interact with individuals from diverse cultural settings.</p> <p>1.5.7 Use intercultural communication skills to exchange ideas and create meaning.</p>
5. Name and describe members of the dental team.	<p><b>3.7 Dental Interventions</b>  <b>Assist in the application of dental and oral interventions and document with dental terminology and symbols.</b></p>

	<p>3.7.4 Compare and contrast various specialties in dentistry.</p>
6. Identify dental specialties and team member roles in various fields.	<p><b>3.7 Dental Interventions</b> <b>Assist in the application of dental and oral interventions and document with dental terminology and symbols.</b> 3.7.4 Compare and contrast various specialties in dentistry.</p>
7. Describe the practices of basic oral hygiene.	<p><b>3.2 Health Promotion Interventions</b> <b>Identify and communicate health promotion and wellness to individuals, support systems, and communities.</b> 3.2.5 Communicate relevant information to promote, maintain and restore overall wellness.</p> <p>1.1.12 Identify healthy lifestyles that reduce the risk of chronic disease, unsafe habits and abusive behavior. 1.5.3 Use cultural intelligence to interact with individuals from diverse cultural settings. 1.5.7 Use intercultural communication skills to exchange ideas and create meaning.</p>
8. Explain the laws and rules in dentistry and licenses and certificates required in the field.	<p><b>6.2 Confidentiality, Privacy and Security</b> 6.2.3 Interpret regulatory requirements, standards of practice, legal responsibility, limitations and implications of actions and describe the appropriate avenues for reporting incidences of malpractice or negligence.</p> <p>1.1.2 Identify the scope of career opportunities and the requirements for education, training, certification, licensure and experience.</p>